

MEMORANDUM



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To: Project Team Members **Date:** 06/30/03
From: MWH **Reference:** 06/12/03 Bosque and Leon
Rivers Watershed Study Team
Meeting Notes
Subject: Team Meeting Notes

The following is the “final” copy of the meeting notes from the events and issues discussed during the team meeting held at the BRA office in Waco, Texas on June 12, 2003.

Attendees:

United States Army Corps of Engineers, Fort Worth District (USACE) – Brian Condike, Wayne Elliott
Brazos River Authority (BRA) – Gayle Haecker
MWH – Ronald Hartline
The Institute of Environmental and Human Health at Texas Tech University (TIEHH) – Dr. Todd Anderson, Dr. Phil Smith, Lisa Perlmutter, John Isanhart
City of Waco – Rick Howard
Texas Commission on Environmental Quality – Mike Honeycutt
City of Killeen – Bruce Butscher

Welcome and Housekeeping

Welcome and introduction of meeting attendees.

TIEHH

- Dr. Anderson reported that since the last team meeting, he had been able to contact Texas A & M regarding the possibility of acquiring historical blood samples from animals that had previously grazed on the A& M property. The contact at A & M informed Dr. Anderson that they don't have any historical plasma or serum samples. Therefore, TIEHH will not be able to analyze historical blood samples for perchlorate as they had hoped.
- Dr. Anderson said that TIEHH had concluded the cattle study on June 11, 2003. The cows have been sent to the slaughterhouse. He passed out a graph showing the perchlorate sampling results in blood plasma collected from the cattle in the study. Water samples from both the enclosure study area (treatment area) and the reference site were also presented.
- The graph showed that perchlorate was detected in all water samples collected from the treatment site. The average detected concentration was 25 ppb in water. Perchlorate was also detected in two of the blood plasma samples collected from the treatment site and ranged from 11 ppb in one sample to approximately 15 ppb in another sample. All other blood

plasma samples were below detectable levels. The detection limit for blood plasma was 11 ppb.

- All water and blood plasma samples collected from the reference site were below detectable levels.
- Dr. Anderson also presented information on a calculation he had performed that indicated that the concentrations detected were in line with calculated concentrations if calculations are based on net water uptake, and don't include uptake into tissues.
- Mr. Condike asked what the cattle were eating. Dr. Anderson indicated that the cattle ate grass from the pasture and were fed supplements when there was not enough grass. The hay supplements were tested and no perchlorate was detected.
- Dr. Anderson's stated that thyroid hormones would now be tested and tissue samples would also be collected from thyroids and livers from the slaughtered cows.
- The two older cows that have occupied the treatment area for over 5 years will also be sent for slaughter in the near future. Thyroid and liver tissue samples will also be collected and analyzed from these animals.
- Mr. Condike asked about urine samples. Dr. Anderson stated that they have collected a few samples but these samples have been extremely difficult to obtain.
- Dr. Anderson stated that TIEHH is also attempting to get access to cows from another state that have been drinking water that contains high levels of perchlorate to do additional analytical testing. A proposal has been submitted.
- TIEHH also completed additional mist netting of birds on the enclosure area property and Dr. Jackson is working with MWH to collect additional pore water samples from the study area lakes.
- Mr. Condike asked about fate of perchlorate in leaf residues and frog development lab studies. Dr. Anderson stated that he was not sure of the progress made in leaf residue study. He will check on progress and inform Mr. Condike. The frog work is continuing but TIEHH can't collect bullfrogs until later in the summer.
- Mr. Condike and Dr. Anderson agreed that Mr. Condike would travel to (TIEHH) Lubbock, Texas on either July 28 or 31, 2003. Dr. Anderson will call Mr. Condike to confirm the date. Mr. Condike plans to meet with Director of Research and other TIEHH personnel involved with various portions of the study to inspect their progress and help tie their work product into the final report schedule.

MWH

- Mr. Hartline indicated that all Field Sampling Plans had been submitted except for the "Groundwater Dye Tracer Study Field Sampling Plan". Mr. Hartline stated that after review of the groundwater level and stream data collected to date, MWH is recommending that the dye study is no longer necessary. Since we have already confirmed gaining and losing streams, it is not necessary to continue with the dye study. Mr. Condike and the team agreed with this recommendation. Mr. Condike stated that we need to keep the topic included in the final report and discuss the rationale regarding why we chose not to complete this study in the document.
- Mr. Hartline discussed the upcoming field work to be performed in June and July including the second ADCP study, the delta area studies in the lakes and the anoxic study planned for Lake Belton.
- Mr. Hartline also presented additional data regarding preferential flow patterns in Lake Belton that were found during the Spring 2003 Lake Belton Acoustic Doppler Profiler Study (ADCP) report.
- Mr. Condike noted that there would a contract modification to the MWH contract to include a more detailed Lake Belton Anoxic Bench Scale Study.

USACE

- Mr. Condike reported that he had to give up approximately \$ 800,000.00 to USACE for use on other projects. This is basically an internal loan , but he will not be able to get the funds back until next year. He indicated that he might get additional pressure to give up more funds.
- Mr. Condike indicated that the project would be completed somewhere in the range of 5 to 5.2 million dollars.

BRA

- Mrs. Haecker indicated that sampling activities were on schedule and progressing well.

Other Business

Mr. Hartline asked Mrs. Haecker about scheduling the TIAER high flow study. She indicated that she would check with TIAER on availability and previous contract terms and we could schedule a date. This survey will likely be scheduled in August or September 2003.

Next Meeting.

The next team meeting was scheduled for August 12, 2003 and corresponds to the date already scheduled for a stakeholder meeting. Mike Honeycutt with TCEQ and a Navy representative have agreed to attend the stakeholders meeting in Temple, Texas at 1:30 PM. Congressional personnel from Senator Edwards and Hutchinsons staff will also be invited to the stakeholder meeting. The team meeting will be held at 10:00 AM at the Temple library.

Adjourn